

## BICYCLE POWER SUPPLY WITH FULL-WAVE AND HALF-WAVE CHARGING ELEMENTS

### ABSTRACT OF THE DISCLOSURE

A charging apparatus comprises a rectifying circuit for rectifying the alternating current from the bicycle dynamo; a full-wave charging element operatively coupled to the rectifying circuit for charging during both positive and negative half-cycles of the bicycle dynamo; a first half-wave charging element operatively coupled to the rectifying circuit in parallel with the full-wave charging element, wherein the first half-wave charging element charges during positive half-cycles of said dynamo; and a second half-wave charging element operatively coupled to the rectifying circuit in parallel with the full-wave charging element, wherein the second half-wave charging element charges during negative half-cycles of the dynamo.